Exhibit 21

Fri 3/19/2021 8:19:10 PM (UTC) tkryger@google:Eom 21-md-02981-JD Document 468-22 Filed 03/27/23 Page 2 of 5 Sent: From: tkryger@google.com, alicesheng@google.com, con@google.com, curriera@google.com, totte@google.com, shreerag@google.com, mwr@google.com, drb@google.com, victoryang@google.com, fennema@google.com, davidsun@google.com Subject: AAAA5zG19Ck-MBI-THREADED:pnbovkF9vzM%%%2021-03-19T01:19:09.685487 tkryger@google.com 2021-03-19T20:19:09.685Z

am i the only one who is only now finding out about https://groups.google.com/a/google.com/g/chat-history-default-on

https://groups.google.com/a/google.com/g/chat-history-default-on

Deleted on2022-09-10T20:19:09.685Z

am i the only one who is only now finding out about https://groups.google.com/a/google.com/g/chat-history-default-on

GOOG-PLAY5-000382012

https://groups.google.com/a/google.com/g/chat-history-default-on

alicesheng@google.com 2021-03-19T20:19:30.043Z

omg

Deleted on2022-09-10T20:19:30.043Z

omg

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1

con@google.com 2021-03-19T20:19:34.725Z

Deleted on2022-09-10T20:19:34.725Z

curriera@google.com 2021-03-19T20:20:06.528Z

wow

Deleted on2022-09-10T20:20:06.528Z

wow

tkryger@google.com 2021-03-19T20:20:25.892Z

(that makes me feel a little better)

Deleted on2022-09-10T20:20:25.892Z

(that makes me feel a little better)

totte@google.com 2021-03-19T20:20:50.418Z

wooohooo

Deleted on2022-09-10T20:20:50.418Z

wooohooo

totte@google.com 2021-03-19T20:21:01.807Z

suppose I shouldn't join.. but ..

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Deleted on2022-09-10T20;21;01-807Z Document 468-22 Filed 03/27/23 Page 3 of 5

suppose I shouldn't join.. but ..

con@google.com 2021-03-19T20:21:08.388Z

lol

Deleted on2022-09-10T20:21:08.388Z

101

totte@google.com 2021-03-19T20:21:11.641Z

but it still gets deleted after n months

Deleted on2022-09-10T20:21:11.641Z

but it still gets deleted after n months

shreerag@google.com 2021-03-19T20:22:04.408Z

isnt history supposed to be bidirectional though? Like if you join this group does that mean the other person will have history on for your chat as well?

Deleted on 2022-09-10T20:22:04.408Z

isnt history supposed to be bidirectional though? Like if you join this group does that mean the other person will have history on for your chat as well?

tkryger@google.com 2021-03-19T20:22:25.853Z

i think this has the effect of you clicking the button manually for htat chat

Deleted on2022-09-10T20:22:25.853Z

i think this has the effect of you clicking the button manually for htat chat

shreerag@google.com 2021-03-19T20:22:35.131Z

yea makes sense

Deleted on2022-09-10T20:22:35.131Z

yea makes sense

mwr@google.com 2021-03-19T22:13:47.152Z

most times I try to turn it on, the other person turns it straight back off again !!!

Deleted on2022-09-10T22:13:47.152Z

most times I try to turn it on, the other person turns it straight back off again !!!

drb@google.com 2021-03-19T22:28:25.330Z

I've had that happen a few times, but mostly people have been ok with it in my experience. I've lost some very useful links because of default off and had to ask for them again (or copy paste them if I realize quickly enough). Super awkward to get good links on Friday and realize they've been destroyed over the weekend ...

Deleted on2022-09-10T22;28:25-330Z981-JD Document 468-22 Filed 03/27/23 Page 4 of 5

I've had that happen a few times, but mostly people have been ok with it in my experience. I've lost some very useful links because of default off and had to ask for them again (or copy paste them if I realize quickly enough). Super awkward to get good links on Friday and realize they've been destroyed over the weekend ...

tkryger@google.com 2021-03-20T00:36:14.799Z

Mark, i suspect it is actually a bug in chat that turned it off

Deleted on2022-09-11T00:36:14.799Z

Mark, i suspect it is actually a bug in chat that turned it off

tkryger@google.com 2021-03-20T00:36:57.818Z

i've had other people observe that same thing when they were talking to me and i hadn't deliberately tried to turn history off

Deleted on2022-09-11T00:36:57.818Z

i've had other people observe that same thing when they were talking to me and i hadn't deliberately tried to turn history off

tkryger@google.com 2021-03-20T00:37:50.782Z

but you might just be talking about way more secretive stuff than me

Deleted on2022-09-11T00:37:50.782Z

but you might just be talking about way more secretive stuff than me

victoryang@google.com 2021-03-20T02:04:31.493Z

I've heard an explanation before that the history setting only takes effect after you send a message. Not sure if that's still true but if it is I guess you can call it a bug

Deleted on2022-09-11T02:04:31.493Z

I've heard an explanation before that the history setting only takes effect after you send a message. Not sure if that's still true but if it is I guess you can call it a bug

victoryang@google.com 2021-03-20T02:04:56.526Z

So essentially you have a race condition with the other person sending messages

Deleted on2022-09-11T02:04:56.526Z

So essentially you have a race condition with the other person sending messages

alicesheng@google.com 2021-03-20T02:09:54.887Z

i have also had the experience where i turn on history and it immediately gets turned off

Deleted on2022-09-11T02:09:54.887Z

i have also had the experience where i turn on history and it immediately gets turned off

alicesheng@google.com 2021-03-20T02:10:10.551Z

and then it's awkward especially if you were talking to a stranger

and then it's awkward especially if you were talking to a stranger

fennema@google.com 2021-03-20T02:10:13.406Z

so you need to turn it on and quicky send a message before they do?

Deleted on2022-09-11T02:10:13.406Z

so you need to turn it on and quicky send a message before they do?

alicesheng@google.com 2021-03-20T02:10:24.847Z

and its like uhhh im sure sure if that was on purpose or not

Updated on2021-03-20T02:50:31.166Z

and its like uhhh im not sure if that was on purpose or not

Deleted on2022-09-11T02:10:24.847Z

Deleted on2022-09-11T02:12:13.909Z

and its like uhhh im not sure if that was on purpose or not

fennema@google.com 2021-03-20T02:12:13.909Z

weekends shouldn't count for timing out chat messages

veckends shouldn't count for timing out that messag

weekends shouldn't count for timing out chat messages

davidsun@google.com 2021-03-20T04:00:21.114Z

If anyone wants to hear horror stories of chat histories being used in depositions at Google ... just ask me and I can speak generally. I used to read that stuff in preparation for litigation. It's bad news

Deleted on2022-09-11T04:00:21.114Z

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